

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

**GIJSMAN et al**

Atty. Ref.: 4662-123

Serial No. 10/563,378

Group: 4171

Filed: January 5, 2006

Examiner: Nguyen

For: **HEAT STABLIZED MOLDING COMPOSITION**

\* \* \* \* \*

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**DECLARATION UNDER 37 CFR 1.131**

Sir:

The undersigned, **Pieter GIJSMAN** and **Wilhelmus Josephus Maria SOUR**, hereby jointly declare and state that:

1. We are the same individuals who are named coinventors of the subject matter disclosed and claimed in the above-identified application.
2. The invention as claimed in the above-identified application was completed in The Netherlands, a World Trade Organization (WTO) country, prior to November 15, 2002.
3. As evidence of such prior invention, there are attached hereto date-redacted copies of laboratory records identified as Exhibits A and B that are maintained in the regular course of business by our employer, DSM, the owner of the subject application and the invention claimed therein. Relevant Dutch words in Exhibits A and B have been translated below into English by including the Dutch word in a parenthetical quote adjacent the English translation of the same. Furthermore, the events noted in Exhibit A and Exhibit B were conducted at our direction and under our control.
4. Exhibit A is a copy of relevant pages ("pagina") 1, 5 and 10 of Work Order Number ("Werkordernummer") 524891. As noted on numbered page 5 of Exhibit A, two

compositions were conceived within the scope of the claimed invention in the above-identified application as identified as Main Number ("Monsternummer") 524891006 and 524891007. Exhibit A also notes that a quantity ("Hoeveelheid") of 10 kg of each such composition was to be made.

5. Compositions 524891006 and 524891007 are further described below with reference to the component identifiers employed in Exhibit A:

<u>Material</u>	<u>524891006</u> (wt.%)	<u>524891007</u> (wt.%)	<u>Material Description</u>
k122	64.46	62.79	AKULON <sup>®</sup> polyamide-6 from DSM
pemza		1.67	MZA modified polyethylene
cs 173x 10c 4mm	30.00	30.00	Glass fibers
acrawax c	0.30	0.30	ACRAWAX <sup>®</sup> C N-N' Ethylene Bisstearamide lubricant/release agent from Lonza Inc.
iodide stabilizer 201	0.24	0.24	Copper iodide/potassium iodide in a stearate (80/10/10) from CIBA (Switzerland)
shelfplus o2-2400	5.00	5.00	SHELFPLUS <sup>®</sup> O2-2400 from CIBA (Switzerland) - Masterbatch of ca. 20wt.% $\alpha$ -Fe, 15wt.% NaCl and 2.5wt.% $\text{Na}_2\text{H}_2\text{P}_2\text{O}_7$ in polyethylene (XRF analysis)

6. Numbered page 10 of Exhibit A confirms that each of the compositions 524891006 and 524891007 was actually made by injection molding ("Meetstaat Spuitgieten") using the respective conditions as specified under each composition number.
7. Exhibit B is a copy of a Laboratory Task ("Laboratoriumopdracht") report number 430490. Composition 7 under the Main ID Number ("monster nr.") column is identified as "30GF-PA6/Shelfplus (PE-iron) 5" and refers to a polyamide-6 composition containing 30 wt.% glass fibers and 5 wt.% SHELFPLUS<sup>®</sup> O2-2400 masterbatch of polyethylene and iron which is in fact composition 524891007 described in Exhibit A. Exhibit B further confirms that the compositions, including composition 524891007, were actually made and were physically subjected to conditions at "T = 185°C" under "O<sub>2</sub>/air" with the counter ("teller") at 2766.

8. All of the events noted in Exhibit A and Exhibit B attached hereto were actually conducted and occurred in The Netherlands, a WTO country, prior to November 15, 2002. Exhibits A and B thus evidence that compositions within the scope of the claimed invention in the above-identified application were conceived and reduced to practice in a WTO country prior to November 15, 2002.
9. I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Respectfully Submitted,

17-08-2009

\_\_\_\_\_  
Date Signed



\_\_\_\_\_  
Pieter GIJSMAN

\_\_\_\_\_  
Date Signed

\_\_\_\_\_  
Wilhelmus Josephus Maria SOUR

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Werkorder Magic - Voorblad

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Werkordernummer . . . : 524891  
Titel . . . . . : Oxidatieve stabiliteit PA 1  
Subgrootboekcode. . . : A524891  
Betalerscode. . . . :  
Opdrachtgever . . . : Sour WJM  
Telefoon nummer . . . : 61871  
Afdeling. . . . . : DEP R&T  
Aanvraagdatum . . . :  
Verwachte leverweek :  
Geplande leverweek. :  
Project/Fase nummer :  
IVS nummer. . . . . : P50034141  
Prioriteit. . . . . : 55  
Klant . . . . . : Product development  
Landcode. . . . . : nvt  
DPP Afd. code . . . : 8

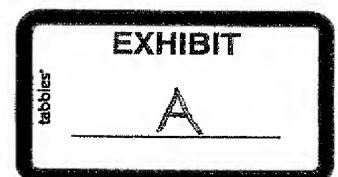
Proces aanwezig	Extern proces (j/n)
* Compounderen	n
Drogen	
* Spuitgieten	n
Testen	

## Omschrijving:

Met behulp van deze WO worden een aantal toevoegingen in PA6 en PA46 bekeken die zowel de chemische als fysieke veroudering tegengaan.

## Verzendlijst:

Afdeling	Naam	Afdeling	Naam



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## Werkorder Magic - Samenstellingen in %/delen

\*\*\*\*\*

Monsternummer			524891001	524891002	524891003	524891004	524891005
Naam			524891-01	524891-02	524891-03	524891-04	524891-05
Extra			TW300	TW300+G21	K224-HG6	HG6+Arntel	HG6+MXD6
Materiaal	[procenten]	Hoeveelheid [kg]	10	10	10	10	0
arnitel p (weinig stab.)						10.0000	
gemalen ks300		9.2600	9.2600				
ks300 8040315		90.0000	70.0000				
kl22					69.4600	59.4600	59.4600
pemza							
lijnolie							
ad35							
cs 173x-10c 4mm					30.0000	30.0000	30.0000
acrawax c					0.3000	0.3000	0.3000
kaliumjodide		0.6700	0.6700				
koperjodide		0.0700	0.0700				
iodide stabiliser 201					0.2400	0.2400	0.2400
shelfplus o2 - 2400							
peg4000							
sps8012pa				20.0000			
grivory g21							
mxd6							10.0000
Totaal		100.0000	100.0000	100.0000	100.0000	100.0000	100.0000

Monsternummer			524891006	524891007	524891008	524891009	524891010
Naam			524891-06	524891-07	524891-08	524891-09	524891-10
Extra			HG6+2400	HG62400+PE	HG6+PEG	HG6+SPS	HG6+lijnol
Materiaal	[procenten]	Hoeveelheid [kg]	10	10	10	10	5
arnitel p (weinig stab.)							
gemalen ks300							
ks300 8040315							
kl22		64.4600	62.7900	64.4600	59.4600	67.4600	
pemza			1.6700				
lijnolie							2.0000
ad35							
cs 173x-10c 4mm		30.0000	30.0000	30.0000	30.0000	30.0000	30.0000
acrawax c		0.3000	0.3000	0.3000	0.3000	0.3000	0.3000
kaliumjodide							
koperjodide							
iodide stabiliser 201		0.2400	0.2400	0.2400	0.2400	0.2400	0.2400
shelfplus o2 - 2400		5.0000	5.0000				
peg4000				5.0000			
sps8012pa						10.0000	
grivory g21							
mxd6							
Totaal		100.0000	100.0000	100.0000	100.0000	100.0000	100.0000

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Werkorder Magic

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Meetstaat Spuitgieten

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Activiteit: 1-eng75/690-00/690-01A

Monsternummer	524891006	524891007	524891008	524891009	524891010
Naam	524891-06	524891-07	524891-08	524891-09	524891-10
Grootheid [Eenheid]					
Samenstelling					
Machine [naam]	Engel 75	Engel 75	vervallen	Engel 75	vervallen
Uitvoerder [naam]	E. Martens	E. Martens		E. Martens	
Matrijs [nr]	690-01A	690-01A		690-01A	
Neus soort [type]	open	open		open	
Neuspunt diameter - lengte [mm - mm]	3.0-60	3.0-60		3.0-60	
Materiaalsoort [naam]	Akulon	Akulon		Akulon	
Materiaaltype [naam]	-	-		-	
Lotnummer [nr]	6	7		9	
Kleur [-]	grijs	grijs		natuur	
Droogtijd [uur]	DAM	DAM		DAM	
Droogtemperatuur [°C]	-	-		-	
Soort stoof [naam]	-	-		-	
Temp. zone 1 (intrek) [°C]	250	250		250	
Temp. zone 2 [°C]	260	260		260	
Temp. zone 3 [°C]	270	270		270	
Temp. zone 4 [°C]	280	280		280	
Temp. zone neus [°C]	280	280		280	
Doseerweg [mm]	71	71		70	
Toerental [omw]	21½=106	21½=106		21½=106	
Stuwdruk [bar]	7.2=75	7.2=75		7.2=75	
Decompressie [mm]	2	2		2	
Injectiesnelheid [mm/sec]	9*35+10	9*35+10		9*35+10	
Injectiedruk [bar]	45.6	54.4		49.2	
Omschklpnt (weg/tijd/Phydr/Pmatr) [keuze]	weg	weg		weg	
Nadruk contactpunt [-]	11	11		11	
Nadruktijd [sec]	15	15		15	
Nadruk [bar]	10*50	10*50		10*50	
Mtrstmp.inj.zde ing. [°C]	83	83		83	
Mtrstmp.inj.zde gem. [°C]	-	-		78	
Mtrstmp.sltzde ing. [°C]	83	83		83	
Mtrstmp.sltzde gem. [°C]	-	-		78	
Koeltijd [sec]	20	20		20	
Injectietijd [sec]	1.83	1.83		1.79	
Plasticeertijd [sec]	12.2	11.7		11.2	
Pauzetijd [sec]	0.5	0.5		0.5	
Cyclustijd [sec]	42.0	41.8		41.8	
Smelttemp. gemeten [°C]	-	-		287	
Shotgewicht [gram]	39.6	36.7		36.2	
Buffer [mm]	7.1	7.6		7.3	
Schroefdiameter [mm]	25	25		25	
Datum [Datum]					



Gerasterde gedeelte niet invullen door inzender

# Laboratoriumopdracht

DSM Research

430490

van	tel.	bedrijf / afdeling	datum in	uit	code
M. Aarsen	60896				
Schmidt					
opdracht van intern. research	bedrijf	contractnr.	center	subgrootboekcode	
613443					
aantal monsters	projectnr.	activiteitsnr.	job nr.	naam projectleider	

monster nr.	aard en herkomst monsters evenals verlangd onderzoek
1	PA16 TW300 Reference
2	PA46 / Grivory 21 80/20
3	304F-PA 6 Reference
4	304F-PA6 / 10 Arnik ←
5	304F-PA6 / MXD6 10 ←
7	304F-PA6 / Shd plus (PE-iron) 5 ←
8	PA66 (4bfs) T=185 100 h
8	PA66 (4bfs) T=230 160 h

<input type="checkbox"/> geen tweede monster beschikbaar	<input type="checkbox"/> telefonisch resultaat	<input type="checkbox"/> gaarne
<input type="checkbox"/> restant monsters s.v.p. retour	<input type="checkbox"/> op	<input type="checkbox"/> l.v.m.
eindresultaat te zenden aan		
#1 : -11 -12 -13 -14 -15		
#2 : -6 -7 -8 -9 -10		
#3 : -4 -12 -13 -14 -15		
#5 : -6 -7 -8 -9 -10 -11 -12 -13 -14 -15		
#7 : -11 -12 -13 -14 -15		

analyseresultaat	uitgevoerd door	geboekt in
O <sub>2</sub> (air) T=185°C		
Wsch 05		
teller 2766		
add		
to be compared with copolymer-PA45		
0-reference, only drying		
tijd: 24h		
100h		
200h		
500h		
resultaat accoord		

## Veiligheids-aspecten

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
licht ontvlambaar	oxyderend	corrosief	ontpofbaar
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
giftig	schadelijk		

Aankruisen wat van toepassing is:

EXHIBIT  
B

064027

991324